Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method, comprising:

receiving, by a network device, a packet fragment of a packet;

determining, by said network device, if said received packet fragment is a head fragment or a non-head fragment of said packet; ~~and~~

if the received packet fragment is determined to be the head fragment of said packet:

generating, by said network device, a session associated with the head fragment;

processing, by said network device, the head fragment to determine a destination address for said head fragment, said generated session being created to store forwarding information and having a period of time to store said forwarding information, including said determined destination address, for said packet or a fragment thereof; and

~~applying~~updating, by said network device~~,~~ at least one non-head fragment of said packet to write said destination address, which is obtained from said generated session, into a destination address field of said ~~to~~ at least one non-head fragment of said packet to enable said at least one non-head fragment to be forwarded to same said destination address as said head fragment; and

forwarding said head fragment and said at least one non-head fragment to same said destination address for reassembly back into said packet at said destination address.

2. (Currently Amended) The method of claim 1 wherein said processing the head fragment includes generating, by said network device, a session pointer data structure associated with said generated session and having the destination address,

said ~~applying~~ updating ~~said destination address to~~ said at least one non-head fragment includes ~~applying~~ overwriting, by said network device, the destination address located from said session pointer data structure into the destination address field of said at least one non-head fragment.

3. (Previously Presented) The method of claim 1 wherein said receiving said packet fragment includes receiving, by said network device, a fragment of an IP-fragmented packet.

4. (Previously Presented) The method of claim 1 wherein the head fragment includes all header information from said packet, and the non-head fragments include packet data from said packet.

5. (Currently Amended) The method of claim 1 wherein both the head and non-head fragments contain duplicative header information from said packet, and:

said processing the head fragment includes processing, by said network device, one of the fragments having the header information as the head fragment; and

said ~~applying~~ updating includes designating, by said network device, other ones of the fragments having the header information as non-head fragments.

6. (Canceled)

7. (Currently Amended) The method of claim 1 wherein said ~~applying~~ updating further includes adding to another of the at least one non-head fragment, by said network device, a routing tag that includes said destination address obtained from said generated session, said destination address being located at a receiver end outside of an exit point of said network device.

8. (Previously Presented) The method of claim 1 wherein said processing the head fragment includes processing, by said network device, the head fragment according to at least one of Layer 4 through Layer 7 criteria.

9. (Currently Amended) A method, comprising:

if a head fragment of a packet is received, generating a session associated with the received head fragment of the packet;

determining a destination address for the received head fragment of the packet, said generated session being created to store forwarding information and having a period of time to store said forwarding information, including the determined destination address, for the packet or a fragment thereof; and

~~applying~~ updating any corresponding non-head fragment of said packet to write the determined destination address, which is obtained from said generated session, into a destination address field of the ~~to~~ any corresponding non-head fragment of said packet.

10. (Currently Amended) The method of claim 9, further comprising:

forwarding said head fragment to said determined destination address; and

forwarding the updated any corresponding non-head fragment having the destination address field that has been written with said obtained destination address ~~applied thereto~~ to same said determined destination address for reassembly back into said packet.

11. (Previously Presented) A method, comprising:

if a head fragment of a packet is received, generating a session associated with the received head fragment of the packet, said generated session having a period of time to store forwarding information for the packet or a fragment thereof; and

applying the forwarding information obtained from the generated session, including a destination address, to any corresponding non-head fragment of said packet, said applying including overwriting a destination address field of said any corresponding non-head fragment with said obtained destination address.

12. (Canceled)

13. (Currently Amended) An article of manufacture, comprising:

a non-transitory computer-readable medium having instructions stored thereon that are executable by a processor to handle fragments, by:

determining if a fragment of a packet is either a head fragment or a non-head fragment;

if the received packet fragment is determined to be the head fragment of said packet:

generating a session associated with the head fragment;

processing the head fragment to determine a destination address for said head fragment, said generated session being created to store forwarding information and having a period of time to store said forwarding information, including said determined destination address, for said packet or a fragment thereof; and

~~applying~~ updating any corresponding non-head fragment of said packet to write the destination address, which is obtained from said generated session, into a destination address field of said ~~to~~ any corresponding non-head fragment of said packet.

14. (Currently Amended) The article of manufacture of claim 13 wherein the computer-readable medium further includes instructions stored thereon that are executable by said processor to handle fragments, by:

forwarding the updated any corresponding non-head ~~fragments~~ fragment having the destination address field that has been written with said obtained destination address ~~applied thereto~~ to same said destination address as said head fragment for reassembly back into said packet.

15. (Currently Amended) The article of manufacture of claim 13 wherein the computer-readable medium further includes instructions stored thereon that are executable by said processor to handle fragments, by:

storing a plurality of corresponding non-head fragments if the session has not been generated, and

said ~~applying~~ updating ~~the determined destination address to any corresponding non-head fragment of said packet~~ includes subsequently ~~applying~~ overwriting the obtained destination address into respective destination address fields of said stored plurality of non-head fragments after the session has been generated.

16. (Currently Amended) The article of manufacture of claim 13 wherein said ~~applying the obtained destination address~~ updating further includes applying a routing tag to other non-head fragments of the packet, wherein said routing tag specifies the obtained destination address, which is located at a receiver end outside of an exit point of a network device that forwards the non-head and head fragments.

17. (Currently Amended) A system, comprising:

a means for determining if a fragment of a packet is either a head fragment or a non-head fragment;

a means for processing the fragment if it is determined to be a head fragment to determine a destination address for said head fragment and for generating a session associated with the head fragment, said generated session being created to store forwarding information and having a period of time to store said forwarding information, including said determined destination address, for said packet or a fragment thereof; and

a means for ~~applying~~ updating any corresponding non-head fragment of said packet to write the destination address, which is obtained from said generated session, into a destination address field of said ~~to~~ any corresponding non-head fragment of said packet.

18. (Currently Amended) The system of claim 17, further comprising means for forwarding said head fragment to said obtained destination address, ~~wherein said means~~ and for forwarding ~~further forwards~~ the any corresponding non-head ~~fragments~~ fragment having the

destination address field written with the obtained destination address ~~applied thereto~~ to same said destination address as said head fragment for reassembly back into said packet.

19. (Currently Amended) The system of claim 17, further comprising:

a means for storing a plurality of corresponding non-head fragments if the session has not been generated, and said means for ~~applying the obtained destination address to said any corresponding stored non-head fragment of said packet subsequently applies~~ updating overwrites the obtained destination address into respective destination address fields of said stored plurality of non-head fragments after the session has been generated.

20. (Currently Amended) A system, comprising:

an entry point to receive packet fragments of a packet;

a storage unit to store non-head fragments of said packet that are received at the entry point; and

a network device coupled to the entry point to determine if a packet fragment received at the entry point is a head fragment of said packet, and to generate a session associated with the head fragment if the received packet fragment is determined to be the head fragment, said generated session being created to store forwarding information and having a period of time to store said forwarding information, including a destination address, for said packet or a fragment thereof,

the network device further being coupled to the storage unit to update said non-head fragments, stored at the storage unit, to write said destination address which is obtained from said generated session into respective destination address fields of said non-head fragments;

~~a storage unit coupled to the network device to store non-head fragments of said packet that are received at the entry point; and~~

~~an exit point coupled to the network device, said non-head fragments stored at the storage unit are updated at the exit point with said destination address which is obtained from said generated session~~.

21. (Previously Presented) The system of claim 20 wherein the network device includes a switch to receive said fragments, which were fragmented from said packet by a router.

22. (Currently Amended) The system of claim 20, further comprising an exit point coupled to the network device, wherein the entry and exit points are included as parts of at least one software-based function.

23. (Previously Presented) The system of claim 20 wherein the network device forwards the head fragment to be processed to determine said destination address, said processing of the head fragment includes at least one from a plurality of Layer 4 through Layer 7 processing.

24. (Previously Presented) The system of claim 20 wherein the network device processes the head fragment to determine said destination address.

25. (Currently Amended) The system of claim 23, further comprising an exit point coupled to the network device and at least another network device coupled to the exit point to perform said processing of the head fragment.

26. (Currently Amended) The system of claim 20, further comprising an exit point coupled to the network device and another storage unit, coupled to the exit point, to store the destination address.

27. (Original) The system of claim 20, further comprising a software program to operate in conjunction with the network device to handle the non-head and head fragments.

28. (Currently Amended) An apparatus to handle packet fragments, the apparatus comprising:

a network device to receive a head fragment of a packet, to process the received head fragment to determine a destination address for said head fragment and to generate a session associated with the received head fragment, said generated session being created to store forwarding information and having a period of time to store said forwarding information, including storage of the determined destination address, for said packet or a fragment thereof, and to ~~apply~~ update any corresponding non-head fragment of said packet to write the stored destination address ~~which is obtained from said generated session~~ into a destination address field of said ~~to~~ any corresponding non-head fragment of said packet.

29. (Previously Presented) The apparatus of claim 28 wherein said network device includes a switch to receive said fragments, which were fragmented from said packet by a router.

30. (Currently Amended) The apparatus of claim 28 wherein to further said ~~apply~~ update, ~~the destination address,~~ the network device applies a routing tag to another ~~the~~ corresponding non-head fragment, said routing tag specifies the stored destination address, which is located at a receiver end outside of an exit point of said network device, to enable corresponding non-head fragments and said head fragment of said packet to be reassembled back into said packet at said receiver end.

31. (Previously Presented) The apparatus of claim 28 wherein said network device performs said process said head fragment according to at least one of Layer 4 through Layer 7 criteria.

32. (Canceled)

33. (Currently Amended) An apparatus to handle packet fragments, the apparatus comprising:

a switch to receive a head fragment of a packet, to process the received head fragment to determine a destination address for said head fragment, to generate a session associated with the received head fragment, said generated session having a period of time to store forwarding information, including storage of the determined destination address, for said packet or a fragment thereof, and to apply the stored destination address ~~which is obtained from said generated session~~ to any corresponding non-head fragment of said packet,

said switch performs said apply by an overwrite of a destination address field of said any corresponding non-head fragment with said ~~obtained~~ stored destination address.

34. (Currently Amended) The apparatus of claim 33 wherein said switch performs said apply said stored destination ~~address obtained from said generated session~~ to said any corresponding non-head fragment that is received subsequently after the head fragment is forwarded to said destination address.

35. (Currently Amended) The apparatus of claim 33 wherein said switch further performs ~~said apply said destination address obtained from said generated session by~~ application of a routing tag to ~~said any~~ another corresponding non-head fragment, said routing tag specifies the stored destination address, which is located at a receiver end outside of an exit point of said switch, to enable corresponding non-head fragments and said head fragment of said packet to be reassembled back into said packet at said receiver end.